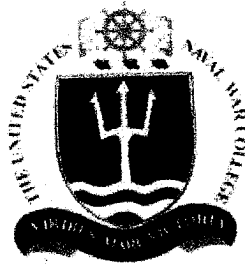


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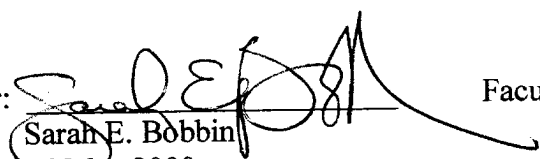
Where's the Lift?
Critical Operational Logistics Limitations on the Use of the
Merchant Marine for Military Sealift in Times of Crisis

By
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Central Intelligence Agency
Seminar #1

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views, and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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15 May 2000

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20000913 141

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): Where's the Lift? Critical Operational Logistics Limitations on the Use of the Merchant Marine for Military Sealift in Times of Crisis (U)			
9. Personal Authors: Sarah E. Bobbin, Civilian			
10. Type of Report: FINAL		11. Date of Report: 15 May 2000	
12. Page Count: 26		12A Paper Advisor (if any): Professor R.K. Reilly	
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: MERCHANT MARINE, OPERATIONAL LOGISTICS, STRATEGIC SEALIFT, OPERATIONAL FUNCTIONS, CHINA, CAPABILITIES			
15. Abstract: The United States military is highly dependent upon the merchant marine to contribute to filling the operational logistics requirements associated with strategic sealift. With a continuing decline of the U.S. Merchant Marine, the U.S. is increasingly reliant upon foreign-flag ships and crews to serve this function. Countries such as China are making a concerted effort to improve their maritime industries, and there is an ever-increasing percentage of Chinese ships and other nationality-flag ships with Chinese crews sailing the high seas. Such significant resources would naturally be unavailable to the United States in the case of a conflict with China or one of its allies. The risk of insufficient lift capabilities for an operational commander to execute his plan in that case could be unacceptably high and must be managed. There have been a number of measures taken over the past two decades and additional measures are proposed to enhance the U.S. Merchant Marine so that it will be available for national security needs. Programs such as the Maritime Security Program, the Voluntary Intermodal Sealift Agreement, and the National Security Sealift Enhancement Act are key to preserving the viability of the U.S. Merchant Marine in a competitive international environment. It is vital for the U.S. military leadership to support these measures to ensure sufficient reliable sealift resources in the long term. In the near term, it is vital to realistically assess merchant marine sealift capabilities and their impact on warplans, and incorporate potential capability limitations into operational planning, specifically operational logistics.			
16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

Security Classification of This Page Unclassified

ABSTRACT

The United States military is highly dependent upon the merchant marine to contribute to filling the operational logistics requirements associated with strategic sealift. With a continuing decline of the U.S. Merchant Marine, the U.S. is increasingly reliant upon foreign-flag ships and crews to serve this function. Countries such as China are making a concerted effort to improve their maritime industries, and there is an ever-increasing percentage of Chinese ships and other nationality-flag ships with Chinese crews sailing the high seas. Such significant resources would naturally be unavailable to the United States in the case of a conflict with China or one of its allies. The risk of insufficient lift capabilities for an operational commander to execute his plan in that case could be unacceptably high and must be managed.

There have been a number of measures taken over the past two decades and additional measures are proposed to enhance the U.S. Merchant Marine so that it will be available for national security needs. Programs such as the Maritime Security Program, the Voluntary Intermodal Sealift Agreement, and the National Security Sealift Enhancement Act are key to preserving the viability of the U.S. Merchant Marine in a competitive international environment. It is vital for the U.S. military leadership to support these measures to ensure sufficient reliable sealift resources in the long term. In the near term, it is vital to realistically assess merchant marine sealift capabilities and their impact on warplans, and incorporate potential capability limitations into operational planning, specifically operational logistics.

INTRODUCTION

As the global marketplace continues to drive toward low-cost solutions not only in product development but in transportation of those products, the worldwide merchant marine industry continues to evolve accordingly. The decline of the U.S. merchant marine in such a competitive environment is relevant to the U.S. military with regard to their requirement for strategic sealift. There are potentially an inadequate number of merchant ships and crews, U.S. or allied, available for strategic sealift support in a crisis due to the increasing foreign control (ownership and/or crew) of international shipping by nations whose views may be inconsistent with U.S. military objectives. In particular, expanding Chinese influence and control of global maritime resources is increasing the potential inability of the U.S. to acquire sufficient lift resources (ships and crew) to support sealift in a conflict against China or one of its allies. In the long term, it is important for national security to strengthen the U.S. Merchant Marine. In the short term, the implications of limited sealift on operational logistics and operational timing must be realistically incorporated into warplans.

This paper will outline the issues associated with a declining U.S. maritime industry to the level that it is insufficient for strategic lift, present a case in point associated with the maturing Chinese maritime industry, and discuss the risk of this decline to national security and relevance to the operational commander. It will then outline measures that could have a positive impact upon the merchant marine and identify how U.S. military leadership can influence the situation. Finally, it will demonstrate the severe impact that limited merchant marine support to sealift would have on operational logistics, and discuss the criticality of incorporating realistic current and projected capabilities into operational warplans.

BACKGROUND

That the United States Merchant Marine is shrinking is by no means newsworthy. It has been in a state of deterioration for years. Nor is it a subject that has not been a source of considerable concern and attention in many circles. To the contrary, since many of the borders of the United States are coastal, the notion of the United States as a sea power is a popular, perhaps coveted one. A sea power is typically characterized not only by a strong navy, but by a robust merchant marine to support a vigorous economy and trading posture. Unfortunately, high costs in the areas of shipbuilding, repair and wages for U.S. seamen have contributed to the inability of U. S. Merchant Marine to compete in the competitive global market.

While the United States Navy's position as the premier navy worldwide is not challenged, it is also understood that with shrinking budgets, the Navy is not as large as it would be if planning were unconstrained. Inherent in this constrained planning is the idea that in time of war, presumably away from home shores, the military could augment its strategic lift capability by calling upon the nation's merchant marine. "The United States must have jointly trained and interoperable forces that can deploy quickly from a posture of global engagement – across great distances to supplement forward-stationed and forward-deployed U. S. forces – to assist a threatened nation, rapidly stop an enemy invasion, and defeat an aggressor, even in an environment of NBC weapons threat or use."¹ The President's 1999 National Security Strategy for a New Century states that strategic mobility is key to the strategy. "Deployment and sustainment of U.S. and multinational forces requires maintaining and ensuring access to sufficient fleets of aircraft, ships, vehicles and trains, as well as bases, ports, pre-positioned equipment and other infrastructure."² Yet the

U.S. merchant fleet carries less than three percent of its international commerce in its own flag ships.³ The U.S. strategy is not supported by the actuality and therein lies the most significant disadvantage of international rather than U.S. ships supporting trade to and from the United States. Without a robust U.S. Merchant Marine, the U.S. Navy will be dependent upon foreign ships and crews to support strategic sealift. As an underpinning of the National Security Strategy, strategic mobility of the military is key "to successful American leadership and engagement."⁴

A number of concerned citizens, civil servants and military officers have documented the limitations of the U.S. flagged merchant fleet and its active, qualified merchant mariners.⁵ Indeed, the U. S. government is not unaware of the phenomenon nor of the risk to national security of not having access to U.S. merchant ships. Documentation abounds from government studies and congressional hearings on the shortfalls and risks associated with the declining merchant marine.⁶ Not eschewing the issue, the government has taken a number of actions over the years to reduce the impact of insufficient strategic lift or at least partially mitigate the risk. These partial solutions include government-owned ships positioned to augment active duty military vessels if needed (Ready Reserve Fleet, Fast Sealift Ships, Afloat Prepositioned Fleet, Large Medium-Speed, Roll-on/Roll-off Ships) as well as measures taken to ease the burden on U.S. merchant ships and thus encourage the reinvigoration of the U.S. merchant fleet (Maritime Security Program, Voluntary Intermodal Sealift Agreement).⁷ Together, these represent but drops in the sea of challenges for boosting the U.S. national strategic sealift capability.

Much stock is put in the ability of the U.S. government to acquire foreign flagged ships for U. S. sealift in times of need. Allies would presumably contribute, or the U.S.

military would hire foreign ships and crews. The gulf war is an example where this successfully augmented the ability of the U.S. merchant marine to support military needs. That this was a success should be taken as a positive sign that alternatives exist; However, the gulf war was perhaps an anomaly in that many nations were U.S. allies allowing many options for sea support, and this must suggest reason for pause.⁸ Had there been significantly less international support, or had countries with significant merchant marines been allied with the enemy, it could have negatively impacted the U. S. ability to tap their maritime resources to support its own needs. One can infer from the quantity of official attention this subject has received, that the U.S. Government has, in general, accepted the risk associated with dependence upon the international merchant marine coupled with limited control thereof. However, the risk will vary depending on the geopolitical circumstances of each potential conflict. That risk must be managed at the operational level depending upon the specific situation in the theater in which an operation will be executed.

CHINESE INFLUENCE IN THE MARITIME INDUSTRY

In parallel with the degradation of the U.S. merchant marine, there has been a not unrelated increase in the merchant marine fleets of a number of less prosperous nations. The availability of alternate flags with favorable taxation and regulation regimens has encouraged smaller nations to get into the merchant shipping business, and U. S. shipping companies to register their vessels overseas. Flagging ships provides what to nations such as Liberia, Panama, and the Marshall Islands, is a significant income, and in some cases it also affords employment opportunities for their citizens.

While the Philippines has long been a predominant source of mariners, over the last five years China has emerged as a contender for a considerable portion of the worldwide marine labor pool. In fact, China has begun to make a concerted effort to actively develop itself as a viable pool of marine labor.⁹ Dr. Minghua Zhao, a senior research associate at the United Kingdom's (UK) Seafarers International Research Center, has reported that "it is clearly a government and industry policy to 'export' more seafarers to other world regions." The government has, in fact, expressed its intent to become a prime supplier of mariners. While historically, Chinese mariners have been relatively highly skilled, they have encountered difficulties on foreign ships due to poor language skills. The Chinese government is now emphasizing English in maritime colleges and despite some reports of a slowing expansion in the numbers of Chinese merchant mariners, there is considerable evidence that their numbers are, in fact growing. This strategy promises to be beneficial both for the Chinese economy and its influence as a growing maritime power.

Concurrently with this, China's shipbuilding and repair industry has been flourishing.¹⁰ With developed steel and engine-building industries, cheap labor, and plenty of available land for expansion, China has the resources and competitive edge to become a major player in the industry. It has been building shipyards almost to the point of overextension, but the growth continues.¹¹ In some cases, the Chinese have established joint shipbuilding ventures with other nations: the Japanese, for example. There is even speculation of a joint venture with Taiwan despite the lack of any kind of political alliance.¹² Such arrangements leverage China's strength with other strongholds in the maritime world. Chinese shipyards have additionally been systematically and successfully acquiring

significant worldwide contracts for new large and specialized ships.¹³ In general, China's foreign trade has increased significantly over the past two decades, and continues to grow.¹⁴

There is much reason to applaud China's ambitious and successful industrial expansion. It is clearly in the interest of the U.S. to see an economically viable, stable, open and prosperous China. However, there is also reason for the United States to stand up and take more than a passing glance. While the U. S. has made enormous progress in relations with this Asian power, there remain vast differences in our interests, outlooks, and goals. The United States must be somewhat guarded in its relations, bearing in mind the significant cultural and political differences that underlie the respective nations' values and interests. The U. S. military strategy sets out an imperative to address two near-simultaneous major regional conflicts. As such, it must at least be considered that one of the two could be with China or one of its allies. The linkage of this issue with the U. S. merchant marine is in the question of availability of international merchant mariners and international ships to support U.S. strategic sealift in such a circumstance.

As no such conflict is imminent, for the future we must project an even more deteriorated U. S. merchant fleet and even fewer U.S. merchant seamen available to support the military if a conflict were to arise. As such, our dependence on international shipping and international crews is vital to our ability to fight and sustain our forces on foreign shores. There were 30,000 Chinese seamen crewing foreign vessels in 1999, and it is clear that the numbers will only increase.¹⁵ It is expected that China will control 40 percent of the world shipbuilding market in the next 20 years. China Ocean Shipping Company (COSCO), China's largest shipping company, is actively building and expanding Chinese shipyards, building ships to expand its own fleet, and securing major contracts for cargo transport.

These trends suggest that between crewing, shipbuilding and maintenance, and cargo transport, China will have influence over vast maritime resources in the future. Whether direct or indirect control, it will have the power to manipulate how maritime resources are employed.

Certainly the United States cannot count on even an allied ship, if crewed by Chinese, to support strategic sealift against a Chinese ally. Carrier alliances, international vessel sharing agreements between shipping lines, which have been proven economically advantageous and are on the increase, only exacerbate the issue.¹⁶ While alliance agreements guarantee that goods will be transported on a vessel owned by one of the alliance partners, there is no preference as to which carrier will be available. If the Department of Defense (DOD) were to tap into one of these arrangements for shipment of supplies to U.S. forces abroad, they would be unable to designate on what nationality ship the cargo would be transported. Accordingly, there would be the possibility that the ship designated by the commercial arrangement would be unwilling to transport U.S. military cargo or resupply. The risk is increased by virtue of the unknown factors of timing and ship availability.

OPTIONS TO ENHANCE THE U.S. MERCHANT MARINE

There is a fundamental disconnect between government desire to influence and promote a vital U.S. merchant marine and the commercial factors that drive the U.S. and global market. The government, and particularly the military position, is that in the context of strategic sealift for military operations, a robust U.S. merchant marine is critical to national security. The commercial perspective that drives the industry is that availability to the least costly means of shipping is key to low-cost consumer goods and success in

competitive businesses. This is particularly important as goods are increasingly manufactured overseas where labor is less expensive, and then imported to the United States. It is impossible, therefore to develop a solely government/military solution, and unlikely that the tides will ever turn toward a U.S. dominated global maritime industry. The U.S. public represents both consumers of goods manufactured overseas and citizens who desire and demand defense offered by the United States military. Interests relevant to these roles are sometimes mutually exclusive, which begs a partnership between government and industry and compromise between commercial and security interests.

Partial solutions of subsidies and tax incentives for the marine industry, incentives for U.S. mariners, and enforcement of international standards will contribute to enhancing the U.S. maritime industry and concomitantly the U.S. strategic sealift capability, while favorably impacting commercial interests. It is then incumbent upon the military to support these measures.

Subsidies, while frowned upon in some circles, represent an important element in making the U.S. merchant industry more competitive. Republicans have traditionally opposed subsidies, whether explicitly designated as such or disguised in some way.¹⁷ In fact, it is common for nations to subsidize their merchant marine industries.¹⁸ The subsidies of some countries are substantial, and allow their commercial ventures to unfairly compete globally. There have been attempts to end international shipbuilding subsidies, but to date, the practice continues.¹⁹ Why then, should it be taboo for the U.S. to do the same? When making U.S. industry more viable also enhances our national security posture, it is actually desirable to do so. The Maritime Security Program (MSP), in conjunction with the Voluntary Intermodal Sealift Agreement (VISA), subsidizes ship owners so that they can

afford to keep their ships under the U.S. flag and then make them available to DOD in time of national emergencies.²⁰ While these programs have helped, they have not been 100% effective. Some of the same companies that operate a portion of their fleets under this program are still flagging their replacement ships overseas. That is clearly still the more lucrative approach. Additionally, this program is subject to annual appropriation by Congress. So far, support has continued, but continual education of Congress is necessary and the annual question of the viability of the program has apparently made ship owners wary of participation. The program is a good one, but has not gone far enough. Additional incentive is required if ship owners are to be expected to play. Confidence that the program will continue to be funded is the most obvious incentive. That would provide some level of security to the owners. Extending the program beyond the existing 47-ship fleet would provide additional incentive.

Subsidies for research and development (R&D) and ship construction would also be advantageous. Industry is driving shipbuilding toward faster and bigger cargo and other ships. Fast ferry concepts abound, and several countries are jumping on the bandwagon to enter this emerging vessel market.²¹ This is an area where U.S. technology could be leveraged to put us in the lead of development. However, R&D is costly and must be accelerated to be competitive. Faster and larger U.S. ships available to the military in times of crisis would clearly be instrumental in enhancing the U.S. controlled lift capability. If fewer resupply trips were required, based on larger cargo capacity, and faster transit times of those vessels allowed more frequent round trips of the vessels, the overall sealift capability would be greatly improved. The efficiencies generated by larger and faster ships could compensate for the shortage of lift using existing sealift assets. The salient point here is,

however, that industry is driving the fast ferry concepts. Government impact can be only in aiding the competitiveness of U.S. ventures compared with foreign efforts.

An additional attempt to reinvigorate the U.S. merchant marine is represented by two identical congressional bills proposing the National Security Sealift Enhancement Act.²² Here, too, U.S. Government and military leaders can speak out in support of the bills. The act provides substantial tax incentives for maintaining the U.S. flag on ships. Specifically, a tax-deferred Capital Construction Fund will allow earnings from the operation of U.S.-flag commercial vessels and duty from foreign repairs to be deposited into the fund to accumulate capital that would underwrite construction of additional commercial vessels in U.S. shipyards. This would at least partially compensate for the advantages incurred by users of foreign registries who pay no taxes. Additionally, U.S. flag vessels in international trade could be depreciated in one year, a practice that is more commensurate with the policies of other countries. Shipping income earned from foreign trade would not be subject to the Alternative Minimum Tax, so that the cost of cargo carried on U.S. ships would be more competitive with that transported on foreign ships. Finally, passengers using U.S. ships for business meetings and conventions would be offered tax relief to encourage the booking of U.S. ships. While not all encompassing, this legislation offers some key tax incentives to make the U.S.-flag merchant fleet more tax competitive. Helen Bentley, former member of Congress and former chair of the Federal Maritime Commission has suggested that the legislation balances the need for targeted tax relief for the U.S.-flag fleet against the realities of today's budgetary restraints.²³

Also associated with the National Security Sealift Enhancement Act are incentives for U.S. merchant mariners. Traditionally, the high skill level of U.S. seamen and the costs

associated with maintaining qualifications and certifications and the U.S. cost of living translate into a demand for higher wages for U.S. mariners. This has resulted in a lack of competitiveness with foreign crews, as crew wages can drive up ship operating costs, which are directly passed to the cost of cargo shipping. Foreign crews are therefore more cost effective for ship operators. The proposed legislation would allow American merchant mariners working aboard commercial ships operating outside the United States to receive the same foreign-source income exclusion currently applied to other Americans working outside the United States. With such tax incentives, U.S. mariners would receive higher net wages than before, and would be more inclined to persevere in an industry where demand for U.S. seamen has declined. Clearly, it is in the national interest to have U.S. mariners who are proficient in current technology and methods available to crew the ships, military or commercial, that would be used for strategic sealift during an emergency. There is reason to hope that the legislation will be passed this year, despite the challenge of getting any legislation through Congress in an election year.

Americans are traditionally demanding when it comes to safety and environmental standards. This is no different in the maritime industry than elsewhere. U.S. ships and U.S. mariners are held to standards that far exceed those internationally accepted. There has long been a movement to establish and enforce international standards of safety for ships operating internationally. U.S. enforcement of existing laws is limited by the capacity of our Coast Guard to inspect ships coming into U.S. ports. More comprehensive enforcement of such laws would indirectly enhance the competitiveness of the U.S. merchant fleet. Foreign-flag ships would be forced to comply with international standards and in many cases perform substantial repairs to their fleet. These costs would then be at least somewhat more

commensurate with comparable upkeep costs for U.S. operators. The result, safer shipping worldwide, would have a positive international impact as well as level the proverbial playing field for U.S. ships.

Considered in terms of operational planning, the requirement for augmentation of navy sealift by the merchant marine offers reason for the U.S. military to become more involved in identifying and supporting courses of action. While regional combatant commanders (CINCs) may not be responsible for developing sealift capabilities, they are most certainly consumers of such. Operational movement and the logistics associated with sustaining U.S. forces in foreign theaters are critical to the successful implementation of their operational war plans. Operational logistics is vital to deliberate planning, and strategic sealift is a significant part of the logistics infrastructure required.

Accordingly, it is in the best interest of the CINCs to ensure that the capabilities that they will require in times of national emergency are incorporated into the overall strategic planning process. Concern should center not only on acquiring U.S.-flag merchant ships that would be useful to their sealift requirements, but also in the availability of American merchant seamen to crew the merchant ships and the reserve government vessels that would be mobilized in time of need. The CINCs should use every means at their disposal to extend their influence in these areas through formal and informal processes within the government. Some programs that will enhance the merchant marine must be funded out of the DOD budget. The CINCs participate in the processes that allocate funding for these and other programs. In other cases, where additional DOD funds are not required, they can still leverage their influence with policymakers. Through the formal resource allocation process, the CINCs can bring to the attention of the Chairman of the Joint Chiefs and the Secretary of

Defense their requirement for augmented strategic lift. This can be explicitly translated into funding or other support of programs that will enhance the U.S. merchant marine.

OPERATIONAL IMPLICATIONS OF SEALIFT LIMITATIONS

While the aforementioned measures of military leadership influencing policy in support of the U.S. merchant marine are important, the solutions are long term and regardless, will not alleviate the issues entirely. In the near term, the CINCs' responsibilities fall more appropriately to recognizing and dealing with logistical limitations. Operational logistics are taken for granted until they are inadequate to support the troops in combat, in which case they become the critical factor.

When adequate merchant ships are unavailable, the military will be forced to make do with whatever is available. In terms of operational factors, the timing of an operation can be profoundly impacted. From providing food to the troops so they can carry on, to providing guns and bullets to fight the next battle, every aspect of a conflict is dependent upon timely resupply. Airlift can provide some additional capability, but when significant materiel is required, sealift is the workhorse. The merchant marine vessels and crews supporting the U.S. military will undoubtedly provide outstanding service as they always have. However limited resources translate to slower support. To provide required support, fewer seamen crewing fewer vessels will have to make more transits than anticipated. More transits take time, making resupply slower. How much slower naturally will depend upon the existing circumstances at the time: allies, allied shipping available, location of the theater, etc. If the conflict is with China or its ally, as discussed above, limitations are likely to be significant since Chinese-crewed vessels will likely be unavailable despite being owned by a U.S. ally.

Merchant marine support to strategic sealift has traditionally been more critical to troop sustainment and resupply than to initial deployment. As such, the implications are more severe for a protracted conflict than a short one. This is an issue from the perspective of delays in resupply impacting or delaying multiple parts of the warplan over time. Sequencing and synchronization of operations, major operations, and campaigns, for example, may be disrupted because one or another component is unable to execute its mission due to a lack of supplies. The domino effect will result in a tactical delay in one area operational implications for successful execution of the overall mission.

Another issue arises in that the capability of a limited number of merchant mariners to crew a limited number of ships with no turnover of either will decline over time. Ships will need repair, and without rest, seamen will become less efficient leading to errors, accidents, or additional slow-downs.

It is clear in the literature that despite a recognition of the decline of the U.S. Merchant Marine, there is a general belief that sufficient sealift will be found somehow if and when it is needed. This goes beyond assuming the risk of limited sealift, but rather reflects a denial of the potential magnitude of the problem, particularly for situations such as a conflict with China. Movement of personnel and materiel into the theater could indeed be slower than required if insufficient lift is available. Time-phased force and deployment data (TPFDDs) associated with an operational warplan include plans and requirements for movement of cargo and personnel. Particularly for deliberate planning, these TPFDDs must be generated based on realistic expectations of merchant marine support. They must be developed and at least annually updated in the context of industry projections of the U.S. Merchant Marine's capacity. Additionally, depending on the politics impacting a possible

conflict, they must be based on realistic assessments of the availability of other-flag ships and crews. For crisis planning and deliberate planning, TPFDDs must allow for the fragility of a limited fleet, demonstrating an appreciation for the expected down-time of vessels with no backup. It is incumbent upon each CINC to ensure a realistic evaluation of the geopolitical situation in and relative to his areas of operations (AOR), the implications for operational logistics, specifically sealift, and the impact that slower resupply will have on his operational plan.

RECOMMENDATIONS AND CONCLUSION

There is no miracle solution to reinvigorating the failing U.S. merchant marine. With a global economy, the market will continue to drive the evolution of the maritime industry. As discussed, what is in the interest of the American consumer is not necessarily in the interest of national security. It is vital to our national interest that an adequate U.S. flag merchant fleet and pool of U.S. mariners can be called upon in time of need to support U.S. strategic lift. In some cases it is reasonable to accept limited risk, since it is likely that for the foreseeable future the U.S. will enter into conflicts within political alliances. Thus we will be able to leverage the lift capabilities of our allies to augment our own. However, Britain's Merchant Marine, for example, is also in decline and thus allies do not represent an adequate safety net. Additionally, as demonstrated in the example of China's expanding maritime industry, there are potential circumstances, such as a conflict with China or one of its allies, that would limit the accessibility to alternate-flag ships for U.S. use. The U.S. military must prepare for such a contingency, unlikely as it may seem at the present time.

Thus a compromise must be reached between allowing commercial interests to prevail unchecked and implementing programs that would counteract any U.S. disadvantages in the industry. The prior cause of action is militarily unwise and the latter is fiscally infeasible. Neither the federal budget nor the American political climate will support massive subsidies or sweeping special treatment of the U.S. maritime industry.

Clearly, the military continues to incorporate into its planning an internal sealift capability. The U.S. Navy is responsible for funding and managing mechanisms such as the Ready Reserve Fleet and afloat prepositioned ships. However, it is clear that such means will not be able to fulfill all U.S. strategic lift requirements in the foreseeable future. As such, it is incumbent upon military planners to influence, to the extent they can, actions relative to the commercial maritime industry, as that has significant implications for national security in general and their planning specifically. Since industry is in the captain's chair, so to speak, the best overall course of action is to support the direction in which industry is already moving and where federal programs exist or are proposed relative to industry. Actions that are supportive of the maritime industry's interests will be much more viable. The CINCs should be prepared to support the Maritime Security and VISA programs, the National Security Sealift Enhancement Act, and expand, to the extent possible, enforcement of International Maritime Organization (IMO) standards by the U.S. Coast Guard. Insofar as research for fast ferry technology supports not only commercial technological advancement but also capabilities that have implications for strategic sealift, it is appropriate for the CINCs to support funding for related development efforts.

Fundamentally in the near term, geographical combatant commanders must rethink their war plans in the context of possible shortfalls in available merchant vessels. They must

recognize the time implications of limited sealift capabilities. Delays in resupply will have a direct impact on the timing of operations. They must prepare TPFDDs not for the best case of merchant marine support, but using a realistic assessment of the availability and capability of the merchant fleet.

Sealift is essential both to executing this country's forward defense strategy and to maintaining a wartime economy. The United States' national sealift objective is to ensure that sufficient military and civil maritime resources will be available to meet defense deployment, and essential economic requirements in support of our National Security Strategy

- U.S. National Sealift Policy

It is not new that a viable, robust merchant marine is critical not only to the economic viability of our nation but to its national security as well. It is also not new that the U.S. merchant marine is declining and must be revitalized to be able to fill the national security need. CINCs must be aware of and on board with the reality that a revitalized U.S. merchant fleet and pool of merchant mariners is key to the successful implementation of their warplans abroad. It is time for our military leadership to take an active role in educating and convincing Congress that programs enhancing the merchant marine are actually vital to our military interests as well. Revitalizing the U.S. merchant marine must become a national priority. Long term success of our military in future operations may rest on it. In the meantime, CINCs must develop a full understanding of the limitations of merchant marine support to sealift, depending on the geopolitical situation. These limitations must be realistically incorporated into their current warplans. The success of our military in the next conflict may depend on it.

ENDNOTES

¹ Department of Defense, Annual Report to the President and the Congress 1998 (Washington: U.S. Government Printing Office, 1998), 8.

² The White House, A National Security Strategy for a New Century, (Washington: The White House, December 1999), 11.

³ Robert H. Pouch, "The U.S. Merchant Marine and Maritime Industry in Review," U.S. Naval Institute Proceedings, May 2000, 104.

⁴ The White House, A National Security Strategy for a New Century, (Washington: The White House, December 1999), 11.

⁵ Stephen P. Ferris, "Crisis in Strategic Sealift," <http://www.almc.army.mil/alog/Marapr96/ms952.htm>; VADM Albert J. Herberger, "The Maritime Security Act: Fulfilling a Strategic Maritime Imperative," Defense Transportation Journal, April 1997, pp. 8, 10-11; John Donnelly, "The Next Time Around, MSP: The Key to a Reliable Logistics Capability," Sea Power, May 1999, 29-38; Sean T. Connaughton, "Reinventing Sealift," U.S. Naval Institute, December 1997, 59-61; Andrew E. Gibson, "After the Storm," Naval War College Review, Summer 1992, 21-27.

⁶ Congress, House, Committee on Merchant Marine and Fisheries, Persian Gulf Sealift Requirements, Hearing before the Subcommittee on Merchant Marine, 101st Cong, 2nd sess, 18 & 26 September, 1990, 10; "Executive Summary of the Mobility Requirements Study, Integrated Mobility Plan," Inside the Navy, 3 February 1992; Charles M. Hanson, The U.S. Flag Merchant Fleet, A Strategic Planner's Magnificent Dream or Worst Nightmare? Carlisle Barracks, PA: Army War College, 27 February 1989; Elmo V. Bessent, U.S. Strategic Sealift Capability Study, Carlisle Barracks, PA: Army War College, 5 April 1991; Jonathan Christian, Sealift and the U.S. Merchant Marine: Vulnerabilities and Implications for Defense, Monterey, CA: Naval Postgraduate School, December 1993; ; Department of Defense, Third Report of the Commission on Merchant Marine and Defense, Washington, 30 September 1988, 1-3.

⁷ Kevin S. Cook, Meeting the Strategic Sealift Needs of the U.S. with a Limited Merchant Marine, Carlisle Barracks, PA: Army War College, 31 March 1999.

⁸ Robert E. Martinez, "Desert Storm and the Role of Sealift," Proceedings of the Marine Safety Council, January-February 1992; Lee Smith, "Lessons from the Rush to the Gulf," Fortune, 28 January 1991, 86-88; Thomas J. Snyder and Stella T. Smith, "The War in the Persian Gulf," Air Force Journal of Logistics, 16-28; M. Theodore Farris and Don Welch, "High-speed Ship Technology: Maritime Vessels for the 21st Century," Transportation Journal, Fall 1998, 16-28.

⁹ Harry Gilbert, "Shipmanagement in the 21st Century," Fairplay, 28 January 1999, 42-43; "Crewing flood Subsidies," Fairplay, 2 December 1999, 38-39; "The Dragon Awakens," Fairplay, 21 December 1995, 13; "China Keen to fill Gap," Fairplay, 22 August 1996, 26.

¹⁰ "China to be No. 1," Fairplay, 23 September, 1999, 51; "Cheap Steel means Cheap repairs in China," Fairplay, 29 April 1999, 44; "Chinese Shipbuilding – A slumbering Giant?" Fairplay, 26 August, 1999, 43; "Chinese go for Niches," Fairplay, 29 April 1999, 47.

¹¹ "Chinese Yards Lose Out," Fairplay, 7 January 1999, 14; "China's shipbuilding Industry Consolodating," Fairplay, 5 August 1999, 13.

¹² "Never Say Ever: Evercosco or forever Independent," Fairplay, 27 May 1999, 5.

¹³ "Chinese at a Crossroads," Fairplay, 26 February 1998, 63; "In Sickness and in Health," Fairplay, 2 September 1999, 43.

¹⁴ Anonymous, "Targets Set for Blue Industry," Beijing Review, 23 Feb-1 Mar 1998, 5; "China Merchants Strongly Ahead," Fairplay, 26 August 1999, 13; "Cosco Unveils its Vision," Fairplay, 18 Feb 1999, 14; "China's Maritime Industry sees Rapid Growth in 1998," Asia Pulse, 11 March 1999; Wayne R. Hugar, "How far will the Dragon Swim?" Proceedings, Mar 1999, 48-51; Anonymous, "Business: Making Waves" The Economist, 28 November 1998, 68.

¹⁵ "Crewing Flood Subsidies," Fairplay, 2 December 1999, 38.

¹⁶ Peter Tirschwell, "One Hearing hardly settles the Antitrust Issue," Journal of Commerce, 24 March 2000, 9; "Alliances, Human Factors and Flags," Marine Log, June 1996, 19-30; Philip Damas, "Global Alliances: The Scramble for Position," American Shipper, March 1995, 28-39.

¹⁷ Theodore Prince, "Moving Right Along," Journal of Commerce, 16 March 2000, 7.

¹⁸ Paul Spillenger, "Cargo Preference Laws still Controversial," Journal of Commerce, 29 March 2000, 24B.

¹⁹ "Flying the Flag or Propping up the Pentagon?" Fairplay, 30 September 1999, 12; "Agreement will End International Shipbuilding Subsidies," Marine Log, August 1994, 9.

²⁰ Robert W. Kesteloot, "Mares' Tails and a Rising Glass: A Harbinger of Fair Weather for the Merchant Marine," Sea Power, January 1997, 67; Edward V. Kelly, "A New Framework for the U.S.-Flag Fleet," Sea Power, May 1997, 51-54.

²¹ John Snyder, "Speedy Deliver: High Speed Craft Operators are finding opportunities in the Cargo Market," Marine Log, July 1999, 11-15; Anonymous, "Upping the knots and

Reining in the Risks," Marine Log, July 1998, 15-18; "The Age of Ferries," Marine Log, January 2000, 27-31; "Rise Above the Obstacles," Fairplay, 26 August 1999, 36-37.

²² Warren Leback, "U.S. Maritime Industry past the Band-Aid Stage," Journal of Commerce, 12 January 2000, 7; Joseph Bonney, "Bill would grant Tax Benefits to Ship Lines," Journal of Commerce, 16 November 1999, 16.

²³ Patrick J. Michaels, "New Bill represents a major Opportunity to help U.S.-Flag Fleet," Journal of Commerce, 2 February 2000, 9.

BIBLIOGRAPHY

- Ackley, Richard T. "Sealift and National Security." U. S. Naval Institute Proceedings, July 1992, 41-47.
- "Age of Ferries, The." Marine Log, January 2000, 27-31.
- Agreement will End International Shipbuilding Subsidies," Marine Log, August 1994, 9.
- "Alliances, Human Factors and Flags." Marine Log, June 1996, 19-30.
- Anonymous. "Business: Making Waves." The Economist, 28 November 1998, 68.
- Anonymous. "Targets Set for Blue Industry." Beijing Review, 23 Feb-1 Mar 1998, 5.
- Anonymous. "Upping the knots and Reining in the Risks." Marine Log, July 1998, 15-18.
- Bessent, Elmo V. U.S. Strategic Sealift Capability Study. Carlisle Barracks, PA: Army War College, 5 April 1991.
- Bonney, Joseph.. "Bill would grant Tax Benefits to Ship Lines." Journal of Commerce, 16 November 1999, 16.
- Boyce, Stephen D. Strategic Mobility and the Decline of the United States Merchant Marine. Maxwell Air Force Base, Alabama: Air War College, 31 March 1999.
- "Cheap Steel means Cheap repairs in China." Fairplay, 29 April 1999, 44.
- "China Keen to fill Gap." Fairplay, 22 August 1996, 26.
- "China Merchants Strongly Ahead." Fairplay, 26 August 1999, 13.
- "China's Maritime Industry sees Rapid Growth in 1998." Asia Pulse, 11 March 1999.
- "China's shipbuilding Industry Consolidating." Fairplay, 5 August 1999, 13.
- "China to be No. 1." Fairplay, 23 September 1999, 51.
- "Chinese at a Crossroads." Fairplay, 26 February 1998, 63.
- "Chinese go for Niches." Fairplay, 29 April 1999, 47.
- "Chinese Shipbuilding – A slumbering Giant?" Fairplay, 26 August 1999, 43.
- "Chinese Yards Lose Out." Fairplay, 7 January 1999, 14.

- Christian, Jonathan. Sealift and the U.S. Merchant Marine: Vulnerabilities and Implications for Defense. Monterey, CA: Naval Postgraduate School, 16 December 1993.
- Cohen, William S. Annual Report to the President and Congress 1999. Washington: 1999.
- Connaughton, Sean T. Reinventing Sealift." U.S. Naval Institute Proceedings. December 1997, 59-61.
- Cook, Kevin S. Meeting the Strategic Sealift Needs of the U.S. with a Limited Merchant Marine. Carlisle Barracks, PA: Army War College, 31 March 1999.
- "Cosco Unveils its Vision." Fairplay, 18 Feb 1999, 14.
- "Crewing flood Subsides." Fairplay, 2 December 1999, 38-39.
- Damas, Philip. "Global Alliances: The Scramble for Position." American Shipper, March 1995, 28-39.
- Donnelly, John. "The Next Time Around, MSP: The Key to a Reliable Logistics Capability." Sea Power, May 1999.
- "Dragon Awakens, The." Fairplay, 21 December 1995, 13.
- "Extracts from the Executive Summary of the Mobility Requirements Study, Integrated Mobility Plan." Inside the Navy, 3 February 1992.
- "Executive Summary of the Mobility Requirements Study, Integrated Mobility Plan." Inside the Navy, 3 February 1992.
- Farris, M. Theodore and Welch, Don. "High-speed Ship Technology: Maritime Vessels for the 21st Century." Transportation Journal, Fall 1998, 16-28.
- Ferris, Stephen P. Crisis in Strategic Sealift,
<http://www.almc.army.mil/alog/Marapr96/ms952.htm>.
- "Flying the Flag or Propping up the Pentagon?" Fairplay, 30 September 1999, 12.
- Gibson, Andrew E. "After the Storm." Naval War College Review, Summer 1992, 21-27.
- Gilbert, Harry. "Shipmanagement in the 21st Century." Fairplay, 28 January 1999, 42-43.
- Goodhue, John T. "Mobilizing the Merchant Marine." U.S. Naval Institute Proceedings, May 1993, 100-105.

- Hanson, Charles M. The U.S.-Flag Merchant Fleet: A Strategic Planner's Magnificent Dream or Worst Nightmare? Carlisle Barracks, PA: Army War College, 27 February 1989.
- Harris, David G. and Stewart, Richard D. "U.S. Surge Sealift Capabilities: A Question of Sufficiency." Parameters, Spring 1998, 67-83.
- Herberger, VADM Albert J. "The Maritime Security Act: Fulfilling a Strategic Maritime Imperative." Defense Transportation Journal, April 1997, pp. 8, 10-11.
- Hugar, Wayne R. "How far will the Dragon Swim?" U.S. Naval Institute Proceedings, March 1999, 48-51.
- "In Sickness and in Health." Fairplay, 2 September 1999, 43.
- Kelly, Edward V. "A New Framework for the U.S.-Flag Fleet." Sea Power, May 1997, 51-54.
- Kesteloot, Robert W. "Mares' Tails and a Rising Glass: A Harbinger of Fair Weather for the Merchant Marine." Sea Power, January 1997, 67.
- Leback, Warren. "U.S. Maritime Industry past the Band-Aid Stage." Journal of Commerce, 12 January 2000, 7.
- Martinez, Robert E. "Desert Storm and the Role of Sealift." Proceedings of the Marine Safety Council, January-February 1992.
- Michaels, Patrick J. "New Bill represents a major Opportunity to help U.S.-Flag Fleet." Journal of Commerce, 2 February 2000, 9.
- "Never Say Ever: Evercosco or forever Independent." Fairplay, 27 May 1999, 5.
- Pouch, Robert H. "The U.S. Merchant Marine and Maritime Industry in Review." U.S. Naval Institute Proceedings, May 2000, 104-110.
- Prince, Theodore. "Moving Right Along." Journal of Commerce, 16 March 2000, 7.
- "Rise Above the Obstacles." Fairplay, 26 August 1999, 36-37.
- Smith, Lee. "Lessons from the Rush to the Gulf." Fortune, 28 January 1991, 86-88.
- Snyder, John. "Speedy Deliver: High Speed Craft Operators are finding opportunities in the Cargo Market." Marine Log, July 1999, 11-15.
- Snyder, Thomas J. and Smith, Stella T. "The War in the Persian Gulf." Air Force Journal of Logistics, 16-28.

Somes, Timothy E., Fogery, William K., and Gregory, Thomas J. "Manning Sealift's Ready Reserve." Proceedings, January 1995.

Spillenger, Paul. "Cargo Preference Laws still Controversial." Journal of Commerce, 29 March 2000, 24B.

Tirschwell, Peter. "One Hearing hardly settles the Antitrust Issue." Journal of Commerce, 24 March 2000, 9.

Third Report of the Commission on Merchant Marine and Defense: Findings of Fact and Conclusions, September 30 1988, 1-3.

U.S. Congress. House. Committee on Merchant Marine and Fisheries. Our Nation's Capability to meet Sealift Requirements caused by American Deployment to the Persian Gulf. Hearings before the Subcommittee on Merchant Marine of the Committee on Merchant Marine and Fisheries House of Representatives. 18 & 26 September 1990.

U.S. Congress. House. Committee on Merchant Marine and Fisheries. Persian Gulf Sealift Requirements. Hearing before the Subcommittee on Merchant Marine. 101st Cong, 2nd sess, 18 & 26 September 1990, 10.

U.S. Department of Defense. Annual Report to the President and the Congress 1998. Washington: 1998.

U.S. Department of Defense. Third Report of the Commission on Merchant Marine and Defense. Washington: 1988.

White House. A National Security Strategy for a New Century, Washington, D.C.: The White House, December 1999.